REMARKS

Reconsideration and allowance of the present patent application based on the foregoing amendments and following remarks are respectfully requested.

By this Amendment, claims 1, 3, 5, 8-9, 11, 13 and 19 are amended and claims 21 and 22 are newly added. Support for the amendments to the claims may be found throughout the application. No new matter is added. Accordingly, after entry of this Amendment, claims 1-3, 5-11, 13 and 15-20 will remain pending in the patent application.

Claim 5 was objected to due to an informality noted in the Office Action. In response, claim 5 is amended in the manner suggested by the Examiner. Accordingly, reconsideration and withdrawal of the objection to claim 5 are respectfully requested.

Claims 1, 3, 5-11, 13 and 15-20 were rejected under 35 U.S.C. §103(a) based on Isobe *et al.* (U.S. Pat. No. 6,019,285) (hereinafter "Isobe") in view of Harrell (U.S. Pat. No. 6,609,655). The rejection is respectfully traversed.

As conceded by the Examiner at page 3, first paragraph, of the Office Action, Isobe does not disclose, teach or suggest using a second processor when an error is generated by the first processor. However, Applicant respectfully submits that there are additional features that are absent in Isobe.

For example, Isobe does not disclose, teach or suggest a card processing system using an IC card having an electrical contact and an IC card antenna, the IC card capable of exchanging information through the electrical contact with an on-board unit installed in a vehicle using a toll road, and capable of wireless communication with an antenna unit installed roadside of the toll road through the IC card antenna, the card processing system comprising, *inter alia*, comparison/collation means for comparing and collating the peculiar information that are stored in the on-board unit and the IC card, respectively, when the IC card storing entrance information of the toll road is inserted in the on-board unit subsequent to the non-contact IC card process executed by the second process; and means for storing the entrance information stored in the IC card as a result of the non-contact IC card process executed by the second processor in the on-board unit when peculiar information stored in the on-board unit and the IC card unit are matched to each other by the comparison/collation means, as recited in claim 1 and its dependent claims.

Similarly, Isobe does not disclose, teach or suggest a card processing method using an IC card having an electrical contact and an IC card antenna, the IC card capable of exchanging information through the electrical contact with an on-board unit installed in a

vehicle using a toll road, and capable of wireless communication with an antenna unit installed roadside of the toll road through the IC card antenna, the method comprising, *inter alia*, subsequent to the non-contact IC card process executed by the second process, comparing and collating peculiar information stored in the on-board unit and the IC card, respectively, when the IC card storing entrance information of the toll road is inserted into the on-board unit; and storing the entrance information stored in the IC card as a result of the non-contact IC card process executed by the second processor in the on-board unit when the on-board unit's peculiar information are matched to each other in the comparing and collating step, as recited in claim 11 and its dependent claims.

Isobe discloses an automatic toll charging system that communicates by radio between roadside units disposed on each gate of a toll road and a vehicle-mounted unit mounted in a vehicle. (*See, e.g.*, col. 2, lines 50-67 of Isobe). Isobe also discloses that an IC card is inserted in the vehicle-mounted unit, and that communication between the vehicle-mounted unit and the roadside units is done via the radio communication part 12 arranged in the vehicle-mounted unit. (*See, e.g.*, col. 4, lines 3-16 of Isobe).

However, unlike claims 1 and 5, Isobe is silent as to comparing and collating the peculiar information that are stored in the on-board unit and the IC card, respectively, when the IC card storing entrance information of the toll road by the second processor is inserted in the on-board unit subsequent to the non-contact IC card process executed by the second process. The Examiner indicated that these features are disclosed at col. 4, lines 17-63 of Isobe. Applicant respectfully disagrees with this determination.

The cited portion of Isobe merely teaches that the IC card 20 includes an interface 21 for exchanging information. (*See, e.g.*, col. 4, lines 37-42 of Isobe). Specifically, the cited portion of Isobe merely discloses that the entrance information are transmitted and recorded to the recording part 13 of the vehicle mounted unit 10, which then records it in the information recordation part 22 of the IC card 20 as a backup. (*See, e.g.*, col. 5, lines 55-61 of Isobe). However, the cited portion of Isobe is completely silent as to comparing and collating information between the on-board unit and the IC card subsequent to the non-contact IC process executed by the second processor. This feature is clearly not disclosed in Isobe at least because, as conceded by the Examiner, Isobe does not teach or suggest a second processor configured to perform a non-contact IC card process.

Furthermore, unlike claims 1 and 5, the cited portion of Isobe is silent as to storing the entrance information stored in the IC card as a result on the non-contact IC card process executed by the second processor in the on-board unit when peculiar information stored in the

on-board unit and the IC card unit are matched to each other by the comparison/collation means. Isobe is simply silent as to what happens to entrance information stored in the IC card after a non-contact IC card process is executed since Isobe does not even hint at using such a non-contact IC card process.

Harrell fails to remedy the deficiencies of Isobe. Harrell merely discloses a smart card system that includes a smart card payment processing facility for communicating with the smart card for automated payments of fares and/or fees and/or tolls. (*See, e.g.*, col. 2, lines 15-65 of Harrell). Harrell is, however, silent as to comparing and collating the peculiar information that are stored in the on-board unit and the IC card subsequent to the non-contact IC card process executed by the second processor or storing the entrance information stored in the IC card as a result of the non-contact IC card process executed by the second processor in the on-board unit when peculiar information stored in the on-board unit and the IC card unit are matched to each other by the comparison/collation means. In the absence of hindsight based on Applicant's own specification, there is no reason as to why one of ordinary skill in the art would compare and collate the peculiar information stored in the on-board unit and the IC card when the IC card is inserted subsequent to the non-IC card process or would store the entrance information stored in the IC card as a result on the non-contact IC card process executed by the second process in the on-board unit. Clearly, these features are not disclosed in Isobe and Harrell.

Accordingly, any reasonable combination of Isobe and Harrell cannot result, in any way, in the invention of claims 1 and 11.

Claims 5, 7, 9 and 10 are patentable over Isobe, Harrell and a combination thereof at least by virtue of their dependency from claim 1, and for the additional features recited therein.

Similarly, claims 15, 17, 19 and 20 are patentable over Isobe, Harrell and a combination thereof at least by virtue of their dependency from claim 11, and for the additional features recited therein.

Claim 3 is patentable over Isobe, Harrell and a combination thereof for at least similar reasons as provided above in claim 1. Namely, claim 3 is patentable over Isobe, Harrell and a combination thereof at least because this claim recites a card processing system using an IC card having an electrical contact and an IC card antenna, the IC card capable of exchanging information through the electrical contact with an on-board unit installed in a vehicle using a toll road, and capable of wireless communication with an antenna unit installed roadside of the toll road through the IC card antenna, the card processing system comprising, *inter alia,*

- 12 -

comparison/collation means for comparing and collating the peculiar information of the on-board unit stored in the on-board unit and the IC card, respectively, when the IC card is inserted into the on-board unit subsequent to the non-contact IC card process executed by the second process. As mentioned previously, neither Isobe nor Harrell discloses, teaches or suggests what happens to peculiar information stored in the on-board unit and the IC card subsequent to the non-contact IC card process executed by the second processor. Isobe merely discloses exchanging information between the IC card and the vehicle mounted unit but is silent as to a non-contact IC card process. As such, Isobe cannot be reasonably construed to disclose these features.

Furthermore, and as mentioned previously, Isobe and Harrell are silent as to a first processor configured to execute, at an exit of the toll road, an electronic toll collection process through the wireless communication between the antenna unit installed at the roadside and the on-board unit into which the IC card is inserted to electrically connect the electrical contact of the IC card with the on-board unit; and a second processor configured to execute at the exit of the toll road a non-contact IC card process through the wireless communication between the antenna unit installed at the roadside and the IC card through the IC card antenna when an error is generated in the electronic toll collection process by the first processor.

As conceded by the Examiner, Isobe does not disclose, teach or suggest using a second processor when an error is generated by the first processor. The Examiner then relied on Harrell as allegedly teaching such a second processor. Applicant respectfully disagrees.

Harrell merely discloses a smart card capable of wirelessly communicating with a toll system. Harrell is however silent as to a system including a second processor that is used when an error is generated by a first processor. Harrell only discusses wireless communication between a card and a toll system but is not concerned with providing wireless communication between a smart card and a second processor when an error is generated during the use of the first processor. As such, any reasonable combination of Isobe and Harrell cannot result, in any way, in the invention of claim 3.

Claim 13 is patentable for at least similar reasons as provided above for claim 3, and for the additional features recited therein.

Claims 6 and 8 are patentable over Isobe, Harrell and a combination thereof at least by virtue of their dependency from claim 3 and for the additional features recited therein.

Claims 16 and 18 are patentable over Isobe, Harrell and a combination thereof at least by virtue of their dependency from claim 3 and for the additional features recited therein.

- 13 -

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 3, 5-11, 13 and 15-20 under 35 U.S.C. §103(a) based on Isobe and Harrell are respectfully requested.

Claims 21 and 22 are newly added to define additional subject matter that is novel and non-obvious. Claims 21 and 22 are patentable over the art of record at least by virtue of their dependency from claim 1 and for the additional features recited therein. Accordingly, claims 21 and 22 are in condition for allowance.

The rejections having been addressed, Applicant respectfully submits that the application is in condition for allowance, and a notice to that effect is earnestly solicited.

If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP

CHRISTOPHE F. LAIR
Reg. No. 54248
Tel. No. 703.770.7797
Fax No. 703.770.7901

CFL/smm
P.O. Box 10500
McLean, VA 22102
(703) 770-7900

- 14 -

400422209v1